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22	23	24	25	26	27	28
29	30	31				

CONSORTIUM CALENDAR

FEBURARY 1984

MARCH 1984

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			1	2 M3G EXEC CHAOS BASIC SIG	3	4
5 CMTUG	6	7	8 LACC	9 OSBORNE SIG M3G	10	11
12 HEATH SIG	13	14 Valentine's Day TI USERS GROUP	15 ENERGY deadline	16 CHAOS ASM SIG CHAOS BASIC SIG	17	18 CHAOS
19	20	21	22	23 CP/M SIG	24	25 APPLE LUG
26	27	28 UPCO (IBM PC)	29			

Apple LUG (Lansing Users Group)
Contact: 406 Box Tree Lane #101, East Lansing, MI 48823

CCUG (Color Computer Users Group)
Meets: East Lansing Public Library, 950 Abbott, E.L.

CHAOS (Capitol Hill Atari Owners Society) (MC2)
Meets: Third Saturday 9:30 AM
Foster Community Center, 200 N Foster, Lansing
Contact: Ike Hudson 351-3092

CHAOS Assembler SIG (MC2)
Meets: 3rd Thursday
Contact: Wendell Proudfoot 371-3678

CHAOS BASIC SIG (MC2)
Meets: 1st and 3rd Thursdays 7:00 PM
Foster Community Center, 200 N Foster, Lansing

CMTUG (Central Michigan TRS-80 Users Group) (MC2)
Meets: First Sunday, 1 PM
Library of Michigan, 735 East Michigan, Lansing
Contact: Sky Tribell 349-1857

M3G (Mid-Michigan Microcomputer Group) (MC2)
Meets: Third Thursday (usually), 7:30 PM
East Lansing Public Library, 950 Abbott, E.L.
Contact: Joe Werner 337-7415
Executive Meetings:
First Thursday, 7:30 PM
Beggar's Banquet, 218 Abbott, East Lansing

M3G CP/M SIG (MC2)
Meets: Last Thursday, 7:30 PM
Foster Community Center, 200 N. Foster, Lansing
Contact: Greg Martin 484-5850

M3G Heath/Zenith SIG (MC2)
Meets: 2nd Tuesday, 7:30 pm
Library of Michigan, 735 East Michigan, Lansing
Contact: Bill Goodwin 349-9657

M3G Osborne SIG (MC2)
Meets: 2nd Wednesday, 7:30 pm
East Lansing Public Library, 950 Abbott, E.L.
Contact: Jim Pease 332-8746

TI Users Group (MC2)
Meets: 2nd Tuesday
Naval-Marine Corps Reserve Center
1620 E. Saginaw, Lansing
Contact: Steve Bennett, 377-1676 (days), 394-1439 (eves)

U.P.C.O. (Unknown Personal Computer Organization--IBM PC group)
Meets: 4th Tuesday, 7:30 PM
Contact: Dick Janson 323-7000 X 224 (days), 675-7453

NOTE: Clubs which are members of the Michigan Computer Consortium are designated by (MC2) following their names.

This listing is as accurate as the information we receive. To list an event or update information, contact Joe Werner at 337-7415 (evenings).

ABOUT ENERGY

ENERGY is published monthly by the Michigan Computer Consortium (MC^2), P.O. Box 1302, East Lansing, Michigan 48823. **ENERGY** is distributed to members of the computer clubs affiliated with MC^2, and is sold at finer local retailers.

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ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium (MC^2) was formed in 1983 to sponsor joint activities involving computer clubs affiliated with MC^2. Current members of MC^2 are:

CHAOS (Capitol Hill Atari Owners' Society)
CMTUG (Central Michigan TRS-80 Users' Group)
Lansing TI Users Group
M3G (Mid-Michigan Microcomputer Group).

Information about each of these clubs is published elsewhere in **ENERGY.**

EDITORIAL BOARD

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ARTICLE SUBMISSIONS

Persons wishing to submit articles are encouraged to do so! Articles may be submitted electronically via CompuNet, or in camera-ready form (3.5 inch columns, 16 characters per inch), or in other forms. Contact any member of the Editorial Board. The deadline for all articles is the 15th of the month preceeding publication.

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C.H.A.O.S. IS:

C.H.A.O.S. is the Capitol Hill Atari Owners Society. CHAOS is the largest computer users group in the Lansing area. CHAOS meets every third Saturday in the Foster Community Center (200 N. Foster, behind the Dunkin Donuts). The meetings start at 9 AM and end around 1 PM. The presentations at meetings include new software, new hardware, and news. Business is limited at general meetings to make the meetings more enjoyable.

C.H.A.O.S. MEETINGS ARE: FUN, EXCITING, INFORMATIVE, AND CHAOTIC

You will have to see a CHAOS meeting to believe it. The discussions are lively, with lots of news and information. The presentations are of general interest. The speakers arrange their presentations to be understood by the beginners in the group as well as the experts.

The presentations at any meeting may include word processors, games, data bases, educational applications, utilities, hardware, hardware modifications, and hardware enhancements. Many people did not realize they could upgrade their Atari 400 to 48K or 64K before they came to a CHAOS meeting.

There are experts and beginners in CHAOS and there are Special Interest Groups so people with similar interests can learn together.

C.H.A.O.S. IS YOUR BEST COMPUTER PERIPHERAL

In addition to receiving a monthly newsletter that will keep you informed of local, national, and international events in computers, you will have access to the largest Atari public domain library of programs in the world.

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The CHAOS library is growing every day. This can save you a great deal of time and money. Programs that you write can be added to the CHAOS library. If you would like a listing of the programs in our current library, please send a large self-addressed, stamped envelope. Include an extra 50¢ if you are not a CHAOS member to cover printing costs. Mail your request to CHAOS, PO BOX 16132, Lansing, Mi 48901.

C.H.A.O.S. RUNS A BULLETIN BOARD SYSTEM

CHAOS, in conjunction with the Library of Michigan, runs a BBS. A BBS is a Bulletin Board System that you can dial into if you own a modem. The telephone number for this BBS is 373-6788. The BBS provides a means of leaving mesages to other computer owners and a means of obtaining software from the CHAOS program library.

C.H.A.O.S. PUBLICATIONS LIBRARY

CHAOS has many books and other publications about the Atari computers that can be checked out by members. Each month CHAOS receives newsletters from other Atari clubs from around the world.

HOW TO JOIN C.H.A.O.S.

If you would like to join C.H.A.O.S. then fill out the Membership Application form found somewhere in this newsletter. Send the application with a check for dues to:

```
*********************************
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*   P.O. BOX 16132              *
*   LANSING, MI 48901           *
*********************************
```

C.H.A.O.S. NEWSLETTER EXCHANGE

If your Atari users group would like to exchange newsletters, then please be sure you mail your newsletter to the proper address. The return adress on this newsletter is not the CHAOS exchange address. The individual clubs within the consortium are responsible for exchanges with other groups and are billed accordingly. Any information for chaos should be addressed to:

```
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TIDBITS FROM THE PRES

If you have purchased a 600XL, 800XL or 1200XL then you may want to know about the official Atari translator disk. This disk will allow load the old Atari O.S. into RAM so you will be able to run the programs that would not run with the new O.S. It will be interesting to see how well it works. Lance has used it and so far, so good. This disk is available free from Atari Customer Service. Call 1-800-538-8543 to get your copy. Lance has given a copy to Guy for inclusion in the library. If you can't wait or get through to Atari, then see Guy or send him $4.00 to cover the cost of the disk and mailing and he will send you a copy.

Atari now has 11 demopacs. These are information sheets (tutorials) that Atari will provide to you free. They are excellent explanations of how to do things like create or access disk and tape files, scrolling, player missle graphics and a variety of other topics. We have 1-8 in the publications library. See Mike Aldrich if you would like to check them out. If you would like your own copy then call Atari at 1-800-538-8543 and ask for them. THESE DEMOPACS ARE FREE IF YOU ASK!

A new service is being provided by several members in the group. They will try to answer your questions in print. This is a collection of fairly high powered experts. All you have to do is jot down your question and send it to CHAOS, PO BOX 16132, Lansing, MI 48901. The questions and answers will appear in the next newsletter to go to publication after the question is received. Remember, the submission deadline for a newsletter is the 15th of the preceeding month.

Again, we apologize for hurting the feelings of LACC members and unequivically state that it was not our intention to do so. We can only hope that they accept this and continue to work with us for the betterment of all microcomputer owners in the area.

We hope to see the Commodore users at the upcoming May Faire. We further hope to have a very competitive, but friendly atmosphere to look at what these two home computers are capable of doing.

TARICON 84 IS COMING

TARICON 84 will be a joint project of MACE and CHAOS this year. It will sponsored by Atari user groups from all over the midwest. Any group interested in having space or being a sponsor of the TAAICON 84 should write to TARICON, PO BX 16132, Lansing, MI 48901.

Booths for clubs will cost a lot less and admission prices will be low enough to encourage families to attend. The key to this years TARICON is that it will be sponsored by as many clubs as we can get involved. It will not be the responsibility of one club. If it succeeds it will be due to the efforts of many clubs. If it fails it will be due to the lack of effort of many clubs.

If you would like to help, call Lance Ward. He will be coordinating the CHAOS efforts.

Commodore Owners Angry!
by Ike Hudson

Our article, The Commodore 64 Story, reprinted from the Houston ACE, which appeared in the December issue of Energy caused quite a bit of enmity at the last LACC meeting. We at CHAOS apologize for hurting the feelings of local Commodore owners. That was not our intention.

We have in the past printed articles quite uncomplimentary to Atari. We had articles in the wings on other systems which were less than glowing. Our goal was to keep our members informed. It also makes for what we thought was friendly bantering between owners of the two computers.

The accidental damage to our relations with LACC is very regrettable. One of our goals has been to foster closer relations among the local clubs. We are succeeding on many fronts: Energy, the May Faire, seminars at community centers, etc. We do not want to damage these good efforts.

ATARI COMMUNICATOR II

Mitch Wells

I understand that many C.H.A.O.S. members have been asking about the Atari Communicator II kit and specifically the 835 direct connect modem. I hope to touch on a lot of the questions you might ask if you're considering one.

To begin with, it looks nice. It's the same size and color as the 850 interface. It connects directly to the Atari port (the same place you'd hook up your disk drive, cassette, etc.). It has one switch and two lights on the front. The switch is power, one light is power, and the other light is an on-line indicator. On the back you'll find all connections, such as power, 2 I/O ports, and two RC11J jacks for the line in from your telephone wall jack and line out to your telephone. Not only is the 835 direct connect to your Atari, it's direct connect to your phone line.

It's auto-dial as you might suspect. That means that this

modem dials the number you wish to connect to itself. It's rotary dial so it works on all phone lines. I've had no problems connecting to any service with this modem. The two best things about this modem are that its needs no interface and it works. Now for the bad news.

This modem is not accessed by any means known to man. I mean, I called up Atari to try to find out how to write a Basic program that would upload and download data, because Telelink II does neither, and Telelink II is the only program that will run this modem. Ken White at Atari told me that this modem was designed by people who no longer work for Atari and the people in charge know nothing about it. You see, this modem is not accessed with an R: but with a T:. This of course does not exist. Atari told me that it will be months before they even decode this unit (i.e. make a handler that will run this from Basic). So be prepared, if you buy this, you won't be able to upload or download for a while. And as for Telelink II, using this cartridge is the only way you can dial the modem. One nice thing though is that Telelink II holds two phone numbers and sign on codes for two services. I keep the phone numbers for Dow Jones and Compu-Serve, the two free subscriptions I got with the modem, in the cartridge. The cartridge is user-reprogrammable.

All in all, this modem is pretty nice, at least it will be as soon as Atari releases the information for it. It is overpriced though, reflecting Atari's new 35% price increase. It sells for around $190.00.

Since I started this review I have found an upload/download program that will work with this modem. See me for details.

Caught With Your TRAP Down!!
By Mike Aldrich

Hi! Have you ever wondered how you could prevent your program from dying on some dumb little error, well if so read on. The Basic TRAP statement is one of the handiest Basic statements that I've run across.

To start off with lets say that we are writing a program that gives you a menu of things that you can do. The options are numbered from 1 to 5 and the program expects you to enter a number. The field that the INPUT or GET statement puts the number you entered into is a numeric variable and cannot handle a letter. If you accidentally (or on purpose) choose a letter instead of a number Basic will give you an error and stop the program. Well, that is normally not suitable and the program should be able to recover and keep on running. Lets look at how the TRAP statement enables the program to continue.

```
100 PRINT "ENTER A:"
200 PRINT "      1  -  TO DO CHECK ENTRY          "
300 PRINT "      2  -  TO PRINT CHECKS            "
400 PRINT "      3  -  TO SEARCH FOR A CHECK      "
500 PRINT "      4  -  TO CHANGE CHECK INFO       "
600 PRINT "      5  -  TO DO END OF YEAR ROLLOVER"
700 TRAP 1000: INPUT OPTION
800 IF OPTION < 1 OR OPTION > 5 THEN GOTO 1000
900 GOTO 1200
1000 PRINT "OPTION MUST BE NUMERIC AND A 1,2,3,4,OR 5"
1100 GOTO 100
1200 ### OTHER TESTS ETC..., ###
```

As you can see lines 100 to 600 print the instructions. Line 700 says from now until another TRAP statement is encountered, if an error occurs (that would ordinarily kill the the program) branch to line number 1000. Line 700 also says INPUT the OPTION. Line number 800 will only handle numeric input that is not a 1,2,3,4,or 5. We have gone ahead and told the program with the rest of the if statement that if the OPTION value returned is not a 1,2,3,4 or 5 do the same thing as the TRAP did GOTO 1000.

Well got to go, Good luck trapping!!

THE BEST ATARI PUBLIC DOMAIN LIBRARY IS AVAILABLE TO YOU

CHAOS has one of the largest Atari PUBLIC DOMAIN software libraries in the world. As of Nov 1983 We had over 60 disks. Disks are divided into Utilities, Games, Education and Demos. All of these disks are catalogued on a program library disk that contains program names and descriptions of the contents of the disk. The program library disk is available to everyone for the low price of $2.00 for members or $4.00 for non-members. (Add $1.50 or a pre-paid, self addressed disk mailer if you want it mailed.) A listing is also available at meetings or to anyone who sends a stamped, self addressed envelope to CHAOS, P O BOX 16132, Lansing, MI 48901.

The costs of disks in the library is only $5.00 per disk for non-members or $3.00 for members. Shipping is $1.50 for every five disks shipped. The order form below is provided for your ordering convenience.

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The XL translator disk is now in the club library. Call Guy Hurt (484-7675) to get a copy.

Building a Better Basic
A Review of BASIC XL

Part I

by Rob Peck

In the immortal words of Koko the executioner from Gilbert and Sullivan's operetta "The Mikado", "I've got a little list". In my case, however, the list is not one of people to execute (although I do have some ideas there), but rather a list of features I'd like to see added to Atari Basic to make it a better language and me a happier programmer.

This list is based on many years experience as a professional programmer on large, mainframe computers as well as the two and one half years I have spent as an Atari owner. During the latter time, I've written a few simple games, some utilities, and one or two practical programs. Additionally, I've helped seemingly interminable numbers of people get through LCC's Basic course and debugged countless programs written by others.

OK, enough talk, let's get on with it. Here's my list.

1. String Arrays
2. English Error Messages
3. Block Delete
4. Automatic Renumbering
5. INPUT with Prompt
6. Better DOS Interface
7. Trace Option
8. Better PRINT facilities
9. Automatic Line Numbering
10. User Defined Functions

Let's take a look at each of my ten items in a little more detail before we get to the good stuff about BASIC XL.

String Arrays -- I put this first just to shut up those people who insist that Atari Basic is completely worthless without them. Our string handling capabilities are, in many ways, more flexible and versatile than the string array equipped Microsoft Basic of most microcomputers. Still and all, it would be nice to have them.

English Error Messages -- This should be self-explanatory. Who hasn't gnashed their teeth in frustration on receiving an ERROR 12 without having the slightest idea either what an ERROR 12 might be or where the Basic manual has wandered off to?

Block Delete -- Two reasons here. First, it's just too much trouble to type in 15 or 20 line numbers when you need to move, or remove, a block of code, and second, it should alleviate the dreaded keyboard lockup which occurs when you delete too many lines.

Automatic Renumbering -- Again, I've got two reasons. First, there are always spots where you need to insert more lines than you have room for, that's just one of the many corollaries of Murphy's law. Second, I'm a neatnik. Once the program is finished, I like it to look orderly. Renumbering helps a lot.

INPUT with Prompt -- I don't know about you, but I'm tired of having to write a separate PRINT statement just to ask for some input. Most basics allow you to bundle the question into the INPUT statement.

Better DOS Interface -- Atari's DOS is pretty good, but using it from Basic is a chore. It would be very nice to examine your directory, rename and delete files, etc, without having to exit Basic with the DOS command and then re-enter it with menu choice B. It's just too time consuming.

Trace Option -- Not all of you may be familiar with this concept. Trace facilities are part of many different computer languages on systems of all sizes. It allows you to follow the execution of a failing program line by line. Knowing exactly where it fails and what path it took to get there is frequently invaluable when debugging.

Better PRINT Facilities -- This boils down to two related wishes. First PRINT USING. It's needlessly difficult to have a really neat and professional looking printout or screen display without this construct. And, second, the TAB function, a convenient way to get to a specific column with your output.

Automatic Line Numbering -- Now we're getting to the bottom of my list. This is not a major problem, but it would be nice to be able to compose your program without having to keep track of line numbers which are just climbing in sequence.

User Defined Functions -- This is a feature of many other basics. It allows you to set up an equation and give it a name. It can then be applied by just using its name later in the program.

For example

```
100 DEF F(X) = X^3
500 PRINT F(2),F(3)
```

would print 8 and 27.

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Actually, I've never had occasion to really want this feature, but it seems so neat I had to include it in my wish list. Besides, it's another one that users of "better" basics beat us over the head with for not having.

You will notice that this list divides into two quite different categories, enhanced basic commands and program development tools. Four of the items are enhanced basic: string arrays, INPUT with prompt, PRINT USING and TAB, and user defined functions. The other six are all program development tools: English error messages, block delete, automatic renumbering, better DOS interface, trace option, and automatic line numbering.

This four to six ratio tells me that Atari Basic is already a pretty good language. There aren't too many actual language constructs which I feel it needs. Most of my complaints are in the area of program development, an area where the home micro just can't compare with its bigger cousins in the business world. (I have been completely spoiled by the program development system on the 6.2 megabyte Burroughs computer at work.)

There you have it, my list of ten ways to improve Atari Basic. These additions would take an already good language and make it unbeatable in the home microcomputer market. Your list may be somewhat different. Mine is certainly influenced by the amount of debugging I do.

Alright, already! What's with all this list stuff? Get to the good part, tell us about BASIC XL.

OK, BASIC XL is a new, cartridge-based superset of Atari Basic developed by OSS Inc, the original creators of Atari Basic. This means it has all the features of Atari Basic plus a whole lot more. It is available now and has a list price of $99, but is usually discounted. Enough commercial, how does BASIC XL fare when put up against my list?

Amazingly enough, it meets nine out of my ten points completely. It also has several extras in both the enhanced basic and program development areas. If that weren't enough, it has a small group of absolutely outasight features I would never have dreamed of asking for. Let's take this in order. First, my list.

String arrays -- These are fully implemented and without compromising the already wonderful string handling built into Atari Basic. As you may know, Microsoft Basic strings are limited to 255 characters. Atari Basic strings are limited only by memory. BASIC XL gives you both.

There are so many additions here, it will take a little while to explain them all, please bear with me. First of all, you no longer have to dimension a string before using it. Undimensioned strings default to a length of 40. If you don't like that, the default can be changed to any value in the range 0-255. Setting it to zero makes BASIC XL work just like Atari Basic.

Next, string arrays themselves. You dimension a string array just like you think you would. DIM ARRAY$(3,15) sets up an array of three strings, each one up to 15 characters long. However, to keep compatibility with Atari Basic's substring handling techniques, you must reference each string array element with a semicolon.

```
For example
   100 DIM ARRAY$(3,15)
   200 ARRAY$(1;)="TEST"
   300 ARRAY$(2;)="test string"
```

Using the semicolon to denote the string array element allows full use of normal Atari Basic substrings. For instance, ARRAY$(1;2) would contain "EST", while ARRAY$(2;5,8) would contain " str". BASIC XL also has full implementations of the LEFT$, MID$, and RIGHT$ functions as found in Microsoft Basic.

English Error Messages -- The wonderful people at OSS actually did this.

```
For example
   10 GOTO 15
   20 END
produces
   ERROR - 12, LINE NOT FND AT LINE 10
instead of
   ERROR-  12 AT LINE 10
```

I'm sure you will agree this is a big improvement. When added to Atari's feature of flagging syntax errors at entry time instead of at run time, you have a very friendly system on which to learn basic.

Block delete -- You get to delete a single line DEL 1200 or a group of lines DEL 1200,3000. The manual is silent on the subject of keyboard lockup, so we'll just have to hope this will avoid the problem.

Automatic renumbering -- Within the limits of the language, they have provided a nice implementation, allowing you to set the starting number (RENUM 100), the increment (RENUM ,100), or both (RENUM 100,100). If you don't specify the starting line number or the increment, they will default to 10, allowing you to renumber your

program by 10 starting with line 10 by just saying RENUM.

Unfortunately, because basic uses line numbers as labels, there are certain restrictions. It will not renumber variables used as line numbers (e.g. GOTO MOVEPLAYER1), nor will it renumber arithmetic expressions used as line numbers (e.g. GOTO 1000 + PLAYERNUMBER*100).

INPUT with prompt -- This works just like Microsoft's.

```
Compare
    100 DISPLAY "Enter a number (1-100)"
    200 INPUT GUESS
with
    100 INPUT "Enter a number (1-100)", GUESS
```

However, this feature is not avaiable when using a channel number (e.g. INPUT #3, GUESS). This should not be a problem as you would only want to use the feature with the screen editor, which is the default INPUT device. Additionally, BASIC XL allows input into a subscripted numeric variable, which Atari Basic does not.

Better DOS interface -- BASIC XL provides five DOS commands directly from basic. They are DIR to get a directory, ERASE to delete a file, PROTECT and UNPROTECT to lock and unlock a file, and RENAME to rename a file. All commands can use normal Atari wildcarding with * and ? (e.g. DIR"D:*.BAS" for a list of all files on drive 1 with an extension of BAS). These commands can be given in immediate mode or they can be used within the body of a program.

Trace option -- This is a simple and elegant implementation. The command TRACE initiates the process. Each line number will be displayed on the screen just before it is executed. TRACEOFF stops it.

Better PRINT facility -- Both the things I wanted are here, PRINT USING and TAB. PRINT USING allows you to specify exactly how and were values are to be printed or displayed.

```
Compare
    100 FOR X=1 TO 3
    200 PRINT 5^X
    300 NEXT X
which produces
        5
        25
        125
with
    100 FOR X=1 TO 3
    200 PRINT USING "###", 5^X
    300 NEXT X
which produces
        5
        25
        125
```

Neat, huh? And this just scratches the surface of PRINT USING. You can specify blank fill numberic fields (like our example), zero fill numeric fields, or asterisk filled numeric fields for checks. It allows for the automatic insertion of dollar signs, decimal points, commas, and signs. Strings can be printed out either right or left justified, and there's even an option to permit the insertion of any character anywhere within a number or string being output. This makes it very easy to print social security numbers which look like social security numbers (i.e. 189-38-6796).

TAB is a function which can be used in a PRINT statement to move to a specific column before printing the next value. For instance, PRINT 1;TAB(20);20 will print a 1 in column one and 20 in column 20. Note that TAB must be used with semicolons. This can be an even quicker way to pretty up your output.

Automatic line numbering -- This one is a pure luxury, but I like it. You can specify the starting line number (NUM 100), the increment (NUM ,100), or both (NUM 100,100). Like RENUM, the starting line and increment will default to 10 if not specified for a new program. If you are adding to an existing program and do not specify the starting line, it will automatically pickup one increment beyond the last line number present. It can be used to add lines to the middle of a program, but will not permit you to overlay an existing line with an automatically generated one.

User defined functions -- OK, here it is, the one thing on my list I didn't get. As I said earlier, I've never really had a serious need for this, unlike PRINT USING or some of the other features, but it seems like it would be nice to have. I am not, however, going to complain about not having it though, when BASIC XL has so many other goodies.

And that only takes in my list! Now, I hear you say, let's talk about the extras and the outasight features which showed up uninvited, but certainly not unwelcome. Unfortunately, you'll have to wait until next month to learn about them. Our editor, who I always thought was such a nice man, grew positively testy when confronted with my whole article. So you will have to bear with me until the next newsletter. Have patience, I assure you it's worth the wait.

"800XLs ARRIVING IN LANSING

The Atari 800XL has finally arrived in Lansing. It has been a long wait, but it is worth it. I hope that we will have a review of this new 800 in the very near future. I hope it is as good or better than the old 800.

Elections in March

It is that time again. It is time to select new officers for the next year. We should probably have some nominations at the Februrary meeting. The nominations will not close until just prior to the voting.

Please be sure that if you nominate someone, they are willing to do the job. We need officers who want the club to be a quality organization and are willing to do the job to make it one. We only have five elected officers. We do not have any titular positions or positions for honorarium. Each officer has functions to perform. If they cannot, will not or do not perform their duties, the club and the other officers suffer.

If you know someone who wants a job with no pay, long hours and plenty of irritations, then nominate them. Please do not nominate someone who does not want a job. Ask them if they would be willing to serve and do the work. You may even nominate yourself if you would like to serve. All positions in CHAOS are volunteers. I would rather see someone elected that volunteered and wants to do the job than someone who is drafted and won't do the job. We cannot afford officers that will not get the job done.

The positions to be elected are President, Vice President, Treasurer, Corresponding Secretary, and Recording Secretary.

The Commodore Monitor

by Ike Hudson

The Commodore monitor is probably the best monitor I have seen for the Atari computer. I have been using one for over a month now. When it is hooked up properly it gives very clear crisp color. By properly I mean that you have to go into the rear of the monitor.

In order to hook the Atari to the Commodore monitor, you will have to buy a 5 pin din to 3 or 4 RCA plug cable. The 1702 comes with a cable, but for some reason, there is a pin in the middle of the din plug so you can't plug it into the Atari.

Once you have the cable, just experiment until you get a very sharp picture and sound. There are 4 plugs and you will use 3 of them. Don't accept a picture until you have tried a variety of connection combinations.

SECOND ANNUAL COMPUTER FAIRE

by Ike Hudson

There will be a second annual Lansing Computer Faire on 12 May at the Foster Community Center. I hope we will have as much support in CHAOS as we did last year. I think we can put on a great show of what the Atari can do.

The fair will only be as successful if we give Lance our full cooperation.

Atari Marketing is the Pits!

In case you haven't noticed, there were no Atari computers available for Christmas. Atari finally got their act together after the first of the year and started delivering some of the new 800XLs.

Now all we have to contend with is getting a disk drive that is capable of double density. We can buy one from everyone except Atari. Is it true that even Commodore is thinking about making one? Then we could run Atari computers with the Commodore monitor and a Commodore disk drive. Most other manufacturers recognize double density, why can't Atari?

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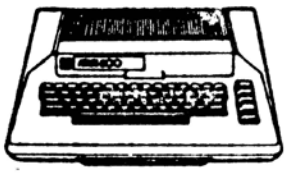

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THE ATR8000 & CP/M ATARI PERIPHERAL

BY IKE HUDSON

The ATR is a great way for TRS80 and CP/M system users to use their old disk drives and convert to the Atari. I know of several Sorcerer and TRS80 users who are doing exactly that. It is worth consideration.

Most of the information in this article comes from the December issue of the Austin ACE. The articles were by Dave Newman and Marc Newman. If you would like more details from their articles, then see Mike Aldrich to borrow the AACE Newsletter.

The ATR8000 is a great way of adding CP/M to your Atari. You can also add the COPOWER board to become IBM compatible. There are many ATR SIGs that are starting in Atari groups. This is a good way to exchange information and learn more about this very powerful expansion unit. If anyone is interested in forming an ATR SIG, then let Lance know. We need to find a time and place to meet. The topics are pretty diverse. We can look into CP/M, how to use the Z80 in conjunction with disk control functions, and how to use the Z80 and the Atari together. There are many more topics, but that is enough for now.

I know that there are at least 8-10 ATRs in this area. There may be more. We may even be able to set up some joint meetings with the M3G CP/M group.

As with any new product, there are bugs in the ATR and in MYDOS. The tips that follow will help to resolve some of these bugs or teach us how to use the ATR better.

Dave says that there is now a fix for MYDOS 3.12 that will resolve the problem of d's appearing out of nowhere. "The problem has to do with burst I/O. Option 1 is to turn off fast writes using MYDOS 0 option. Option 2 is to make the following patch to MYDOS. What follows is a list of addresses and the values that must be poked into these addresses. 3408,67 3409,0 3465,234 3466,234 3467,234 3468,234 3469,234 3474,67 3475,0 . Remember after making the patch to use the DOS H option to write a new DOS with the saved fix." I haven't tried this yet, so don't use your only copy to do this.

Marc gives us an addendum to the ATR8000 CP/M supplement manual. For systems with two or more drives:

"1. Use DDINIT option 1 to format a single sided single density disk in drive B.
(Be sure to work from a backup of your CP/M disk)

2. Use DDSYSGEN option 3 to configure your system as explained in the ATR8000 CP/M supplement manual. Then write (DDSYSGEN option 2) the new system onto the newly formatted ss/dd disk in drive B.

3. Use PIP to move PIP.COM and D*.* files to drive B.

4. reset the ATR and reboot with the new ss/dd disk in drive B.

5. Use DDINIT to format a double sided disk in drive B.

6. Use DDSYSGEN to move (option 1 to read drive A system tracks, then option 2 to write to drive B system tracks) the CP/M system over to drive B.

7. Use PIP to move all the files from drive A to drive B.

8. Reset the ATR8000 and reboot with the new double sided disk in drive A.

9. Insert the backup of the SWP CP/M distribution disk in drive B. Then run DISKDEF.COM, choosing format option 17, to configure drive B to read the single sided disk.

10. Use PIP to transfer all files from drive B to drive A. Use the command 'PIP A:=B:*.*[V]' (no quotes in command)"

There is now a BBS in Texas that specializes in the ATR8000. The telephone number is 512-835-9742. If you would like to talk to the SYSOP call 512-835-9732.

There are many other newsletters that have information about the ATR8000. Check out the Atlanta, San Antonio and Dallas groups.

CHAOS T-SHIRTS ARE AVAILABLE! ORDER NOW AND SAVE!

CHAOS now has a very special t-shirt. This t-shirt has the CHAOS logo (Capitol dome with CHAOS under it) and the words CAPITOL HILL ATARI OWNERS SOCIETY under it. The price right now is only $5.00. This price will go to $6.00 after the March meeting. So order now and save! You will want to have one for the May computer faire.

Sweat shirts and jackets are also available. If you would like a sweat shirt or a jacket, then contact Lance Ward at 393-1357. He will give you the prices and can describe the jackets and sweat shirts.

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CHAOS T-shirts can be ordered in the following colors and sizes:

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____	_____	_____
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TI COMP CLUB

The Lansing Area TI User's Group met Tuesday, 10 January, 1984 at the Marine Corps Reserve Center, 1620 East Saginaw Street in Lansing. The group held a contest for a "LOGO", and the winning entry was submitted by Don Armstead who was awarded a *Tax Investment/Record Keeping* command module as a prize. The logo is being put into print and will be presented for all to see at a later date.

A permanent name was also selected to go along with the logo: our group will now be known as the TI *Comp Club*.

The following officers for the year were elected:

President.....Larry Read
Vice President.....Ransom Cope
Secretary.....Elaine Bryant
Treasurer.....Lawrence Starr

Standing Committees selected were:

Library.....Mike Thelen
Randy Phelps
Don Armstead

Program.....Scott Townsend
Steve Bennett
John Dziewiatkowzi

Membership.....Steve Bennett
Scott Townsend
Eugene Loyd

Regular meetings of the TI COMP CLUB are held the second Tuesday of the month at the above location. Meetings begin at 7 PM.

There will be a second meeting for educational and demonstration purposes. This meeting is scheduled for the fourth week of the month. For the exact time and place contact one the officers or committee members.

The officers want to make this club a club for the members. This means we *MUST* have your attendance and input in order to accomplish this.

Our library has approximately 100 programs available now, which are available only to paid members of the club. For information on this or on other topics call any of the numbers below:

Larry Starr.....627-2817
Larry Reed.....645-2686
Steve Bennett.....394-1439
Eugene Loyd.....394-1494

Anyone interested in learning about CP/M for the TI 99/4A may contact Steve Bennett at the above listed number.

Submitted by Eugene Loyd, Newsletter Chairman

SDI FOR TI USERS

Peter Owens: "Programs for the TI Home Computer". Popular Computing, Feb84, pp. 212, 214. A review of the book by Steve Davis. end

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TRS-80 MODEL 4 UPDATE

by Jack Decker

This is an update to my article, "TRS-80 Model 4 Information" which appeared in the January, 1984 issue of ENERGY.

First of all, I made the comment that "there may be a way to convert Mod I/III programs [to Model 4 BASIC] without having to go in and manually insert spaces". Apparently I missed that sentence when I updated the article for ENERGY, or I would have mentioned Lee Becker's MOD4BASC/BAS program, which automatically does most of the work necessary to convert Model I/III programs to Model 4 BASIC. The best part about this program is that it's FREE - CompuNet subscribers can download it from the BBS (the number is (517) 339-3367, for those that may not have it handy), and others can pick up a copy of Northern Bytes Volume 5 Number 1 (make sure you get number one), which contains a listing of the program, at The Alternate Source, 704 North Pennsylvania Avenue, Lansing, Michigan 48906 (you may request that a copy be mailed to you, but you must enclose a 20 cent stamp and a pre-addressed mailing label).

Also, I mentioned the problems with NEWDOS/80 and LDOS overwriting the ROM code after it has been relocated to RAM. Well, we finally found the solution to that one. It turns out that both of the aforementioned DOSes use the ROM area (starting at 0000H or 0100H, respectively) as a "bit bucket" during disk write-with-verify operations, so when you have moved the ROM code into RAM, LDOS or NEWDOS/80 will bomb it as soon as you do any disk write operation (including a write to the disk directory, as would happen when a file is KILLed or RENAMEd). The following patches move the location of the "bit bucket" from 0000H or 0100H to 3800H (the memory-mapped keyboard area, which is still considered a "read-only" section of memory):

LDOS 5.1 for the Model III: Type the following line from LDOS READY:

PATCH SYS0/SYS.RS0LT0FF (X'46C2'=38)

(NOTE: You may wish to verify that this byte is the correct location to change before applying this patch. If so, use DEBUG to examine the three bytes starting at 46C1H in memory. Prior to the application of this patch, they should be 26 00 CD. Also, note that the password RS0LT0FF used in the above command line contains two ZEROES, not two letter "O"s).

NEWDOS/80 version 2.0 for the Model III: Use the DFS function of SUPERZAP to make the following zap to SYS0/SYS, file sector 02, byte AB:

change: 26 01 CD to: 26 38 CD

(NOTE TO MODEL I USERS: This same zap can be applied to the Model I version of NEWDOS/80, but the location to patch is SYS0/SYS, file sector 03, byte 2A, so if you are a Model I owner with a hardware modification that allows you to move ROM into RAM, you also can fix NEWDOS/80 to work with your system.)

PLEASE NOTE that these patches have NOT been completely tested, although I have not encountered any problems with them so far. If you apply them, please test them thoroughly before you use them with any irreplaceable programs or data.

Thanks to GREG SMALL from Stouffville, Ontario, Canada for his assistance in helping to discover the source of the problem. NO thanks to Apparat, because they offered absolutely no assistance in tracking down the problem (it seems that they are now pursuing the IBM market, and don't have much interest in providing further support for the TRS-80 products that made them rich in the first place).

Since we have discovered these patches, I have been able to use my VIDEO4 24x80 video driver program with NEWDOS/80 and LDOS with no difficulty. I will mention that an upgrade to VIDEO4 is now available - the new version supports the on-screen clock, as when a CLOCK ON or CLOCK Y command is executed from DOS READY, and makes the clock keep proper time when the fast CPU clock speed is used. Purchasers of the original version of VIDEO4 should contact The Alternate Source for upgrade information (the phone number at TAS is (517) 482-8270).

Now a bit of miscellaneous information. According to the Model 4 Technical Manual, ports have been reserved within the Model 4 for the Floppy Disk Controller option, the RS-232 option, the sound option (those three are really standard in a disk-based Model 4), a High Resolution Graphics option, and a Hard Disk option. The sound board is accessed through port 90H (actually ports 90-93 as this is one of those ports that is not fully decoded), and bit 0 is the bit that controls the sound. If you need more information about the ports, see the port map on pages 15-18 of the tech manual. Memory map information is on pages 18-20. And, for those of you that bought your Mod 4 mail order and didn't get the sound board, a schematic diagram AND a printed circuit board diagram (both top and bottom) can be found on page 22. The sound circuit appears to be super simple - it uses a 74LS74 IC, a 2N3906 transistor, three resistors and a capacitor, and a "QMB-6" transducer. It would probably be a very simple matter to modify the circuit to use a small speaker for higher volume and/or to add a volume control, or even to make it "switchable" to allow the user to monitor port 0FFH instead of port 90H, so that Model III versions of games with sound would not need to have an external amplifier hooked up to the cassette port in order to hear the sound (why doesn't someone do this and write it up?).

If building your own sound board isn't enough of a challenge, the manual also provides schematics and PC board diagrams for the RS-232 board (have fun building THAT from scratch!). Actually, the entire Model 4 is very well documented from both the hardware and software viewpoints in this manual (although only TRSDOS 6.x is documented, not BASIC or the ROM). The Model 4 Technical Manual is a must for any serious Mod 4 hacker. You can pick up a copy at your nearest Radio Shack store or Computer Center (the catalog number is 26-2110).

Transferring Data between the Model 100 and the Model III

You may transfer data between the Model 100 and the Model III using VIDEOTEX PLUS on the Model III and the TELCOM program on the Model 100. Model 100 programs must be stored in ASCII format (files with a .DO extension-either Text files or else BASIC program files SAVEd with the A option).

First, make the preliminary hardware and software connections by following these steps:

1. Connect the two computers via an RS-232C Cable (26-4403) and a Null Modem Adapter (26-1496).
2. Insert a VIDEOTEX PLUS Diskette into the Model III. Press RESET then type VIDTEX. Upon doing so, the message "DATA CARRIER LOST" will appear on the screen.
3. Simultaneously, hold down the (SHIFT), (↑), and (M) keys to reach the TERMINAL MENU. Type (Q) to check the status. The following values should be entered for the Model III status:
   BAUD: 55
   UART: 6D
   DUPLEX: H(ALF)
   XON/XOFF: Y(ES)
4. To get to the TERMINAL Mode, press (ENTER). The message DATA CARRIER RESTORED will appear on the screen. (This message will not appear, however, unless the Model 100 is in TELCOM set up to the RS232 in TERM Mode.)
5. On the Model 100, move the Menu Cursor to the word TELCOM and press (ENTER). The TELCOM prompt will appear. Press STAT ((F3)) and type:
   (3)(8)(N)(1)(D) (ENTER).
   This sets the Model 100 communication parameters to match the parameters you previously set on the Model III.
6. Enter the Model 100 Terminal Mode by pressing TERM ((F4)). Now that the Computers are connected and have matching communication parameters, you may transmit files to and from the two machines.

DOWNLOADING FILES FROM THE MODEL III TO THE MODEL 100

To download a Model III file to the Model 100, follow these steps:

1. On the Model III, simultaneously press the (SHIFT),(↑), and the (M) keys to reach the TERMINAL MENU. Once in the menu, press (L) to load the RAM buffer.
2. Once again go into the TERMINAL MENU on the Model III and press (V) to transmit data.
3. On the Model 100, press DOWN ((F2)). TELCOM will prompt you for a file name. Enter the name of the new file, using the .DO extension (TELCOM will add this extension if you don't supply it), then press (ENTER). The label DOWN will appear in reverse video.
4. When all of the data has been transmitted, press (F8) on the Model 100 to exit the Terminal Mode. When prompted DISCONNECT?, press (Y), then (ENTER).

The Model III file is now stored in the Model 100's memory under the file name you specified.

UPLOADING MODEL 100 FILES TO THE MODEL III

To transmit a Model 100 file to a Model III, follow these steps:

1. Enter the TERMINAL MENU on the Model III by simultaneously pressing the (SHIFT), (↑), and the (M) keys. Open the RAM buffer by pressing (O).
2. Again enter the TERMINAL MENU and zero the RAM buffer by pressing (Z).
3. On the Model 100, press UPLOAD ((F3)).
4. TELCOM will then prompt you for width. This refers to the maximum number of characters transmitted before transmitting a carriage return. Enter an appropriate value, then press (ENTER). Remember that the Display on the Model 100 is 40 characters wide.
   If you want to send the file "as is," simply press (ENTER).
5. As the file is transferred, the Up label appears in reverse video and the transmitted data appears on the Model III Screen.
6. When the transmission is complete, the Up label returns to normal video.
7. On the Model III, simultaneously press (SHIFT), (↑) and (M) to return to the TERMINAL MENU. Now press (C) to close the RAM buffer. To save the file, return to the TERMINAL MENU and press (S). Type the file name and press (ENTER). To exit the Terminal mode, enter the TERMINAL MENU ((SHIFT) (↑) (M)) and press (X) to exit.
8. To exit the TELCOM program on the Model 100, press (F8) to exit the Terminal Mode. When prompted DISCONNECT?, press (Y) and (ENTER). Now press (F8) again to return to the Main Menu.

The Model 100 file is now stored on your Model III disk, under the specified file name.

WHAT'S A COMPUTER, PART 4

by Harold Haughton

There are programmers, and there are programmers. Some are better than others, but none have arrived at the point where they know everything about their art. Somewhere in this continuum you and I belong.

Webster describes an expert as someone who has special knowledge or skill, and he describes a novice as a beginner. How long does a beginner have to play around with programming before he or she can be called an expert? Perhaps we can agree that if programmers work full-time at it we can call them experts. Yet these so-called experts are not always worthy of the name, as witness so many commercial programs on the market that just don't work. There is clearly a large gray area separating novices from experts in this field.

We are not going to solve that riddle in this article, but we can help the novice along the road to becoming an expert, by pointing out some of the techniques used by the experts. In all cases they want the program to work as designed, be fast, user-friendly, and use as little memory as possible. Finally, they want the documentation to be easy to read and understand. Let's look at these considerations one at a time and discuss them.

If you are a programmer working for someone else, the first step is usually done for you, handed to you on a sheet of paper. Before you start you are told what the program is supposed to do, how it's to do it, and what the final result will look like. From then on the job is up to you.

As an amateur, then, you should sit down and outline your program on paper, not necessarily with full program lines, but at least putting into words what you want the program to do, how you want it to look when finished, and how you inten to accomplish these things. The worst thing you could do is to start typing code directly. Your notes could be only a paragraph or two, but as you progress you will find yourself automatically writing more and more detail, with the result being a better program in less time. At first this may seem a waste of effort, but it truly is a necessary procedure if you want to become a good programmer.

You never want your program to be a slowpoke. While the surest way to greater speed is machine language, if you look around you'll find that most of the popular programs are written in BASIC, and for good reason. Very few 'finished' programs are actually ever really finished. Most will need modification sooner or later. Moreover, if you are writing a program to copyright and sell, you can never be sure that the end-user's application will be the same as yours. Simply put, a BASIC language program is much easier to modify or adjust to the user's whims.

How, then, do you speed up a slow-poke program? There are several tricks to keep in mind. First, there is a tendency to write single, long programs, but if you break the code into several shorter modules, each assigned to a different function of the main program, you can save some precious time. Here's where organizing what you want to do and how can come in handy. Also, while writing your program you'll find REM statements very useful, especially in the debugging stage. But your finished, ready-to-run program should be completely void of these statements. Also, you should avoid unnecesary spaces in program lines. Spaces and REM statements not only take extra execution time, but they also use up lots of memory. Finally, don't repeat yourself if GOSUB statements can be used instead.

Are your programs user-friendly? Most commercial ones are not. It really makes no difference if you intend to sell your efforts or not; you should strive to write user-friendly software. It is a mark of excellence that really takes very little extra effort. Accomplish this one thing and you'll have taken a giant step towards becoming an expert. Good programming techniques ought to be habit-forming. Here are some tips that may help:

Keep your instructions simple. A menu-fed program is simpler to use than having to poke into the manual for the next step. Whenever possible, the program should automatically proceed to the next step without additional effort on the part of the user. For example, suppose the next step in your program requires a decision by the user. At this point a menu showing the various options should automatically appear on the screen. Each statement on the menu must be simple and to the point. Again, going over all the details on paper before you start is a great help.

If your program is well-written, is menu-fed and easy to use, then explaining how to use it can be simple. Write your documentation as if you were trying to explain it to a grade school student. Pitch it at that level and you will have no problem writing the documentation.

If you have practiced what I've been preaching, then you are well on your way to becoming an expert. However, experts have a few more tricks up their sleeves that the novice knows little about. I'll point out a few of them. The expert always makes it easy for 'number one'. He or she has a bag of routines stashed away to draw upon for simplifying programming tasks. There are many oft-used commands, functions or routines in any program. The

novice's tendency is to type these in as needed. Not so the experts; they type these in once and then use them as subroutines over and over again. In fact they may have a couple dozen or more such subroutines, which they save with the 'A' option on disk and merge them into the program they are currently writing. This can save up to 30% of their programming time.

As we list a few of these frequently used routines, note the high line numbers. This is necessary so the routines do not overlap or displace your program lines. Save them with the 'A' option in order to facilitate merging.

```
40000 Z$=INKEY$:IFZ$=""THEN40000ELSERETURN
40010 PRINT(AT)920,"PLEASE ENTER YOUR CHOICE;:INPUTZ:RETURN
40020 PRINT(AT)920,"PLEASE ENTER YOUR
      CHOICE;:INPUTZ$:RETURN
40025 Z$=INKEY$:IFZ$=ZZ$THENRETURNELSE40025
40030 OPEN"I",Z,Z$:RETURN
40040 OPEN"O",Z,Z$:RETURN
40050 PRINT(AT)(64-LEN(Z$))/2,Z$:RETURN
```

Remember, there are dozens of such routines you can use. If you see something in a program you like, feel free to use it as a subroutine in your program. Better yet, borrow or buy a book on programming techniques. It will be full of such routines.

How to use the above routines. 40000 is a common INKEY routine; see manual. 40010 - INPUT function returns an integer. 40020 - INPUT function returns a string. 40025 returns a one-key input. 40030 opens a sequential file for reading. 40040 opens a sequential file for writing. 40050 will center a word or phrase.

Good luck with in employing these hints in your programming.

FEBRUARY MEETING PLANS

On the odd chance that this month's *ENERGY* gets to you in time to do any good as a meeting announcement, let it be known that our February meeting will feature demonstrations of new hardware products. Joel Setzekorn, on Computer Options in Charlotte has agreed to bring a TRS-80 Model 4P, and a Sanyo MBC555 computer, as advertised on the adjacent page.

The March meeting will shift again to a software focus, with comparisons of competing database management programs. Keep the second Sunday of each month free for these meetings, and support CMTUG.

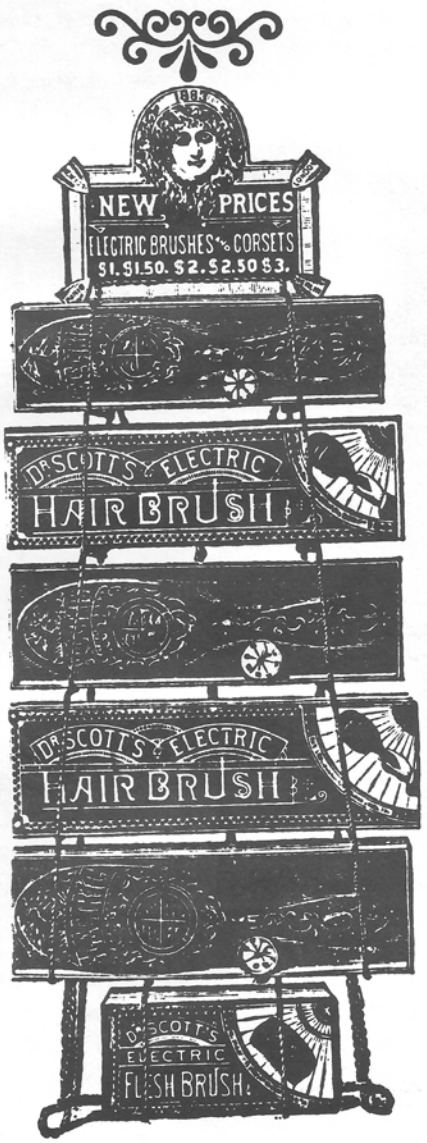
SDI FOR TRS-80

Greg Rogers: "Speak easy and carry a big digitizer". Microcomputing, Jan84, pp. 100-102. Article with program listing to provide a voice digitizer for a TRS-80 Model III.

William Englander: "Review: SemiDisk I". InfoWorld 16Jan84, pp. 83-84. A favorable evaluation of a semiconductor disk available for TRS-80 Model II.

Shay Adams: "Home-Stretch Software". Popular Computing, Feb84, pp. 202-203. A review of *36 Horse Race Handicapper* for TRS-80 Models I & III.

Steve Barry and Randy Jacobson: "The TRS-80 Model 16B with Xenix." Byte, Jan84, pp. 288-292, 294, 296, 298-300, 302, 304, 308, 310, 312, 314, 316, 318, 320. A "Byte"-sized review of Tandy's 68000 killer.



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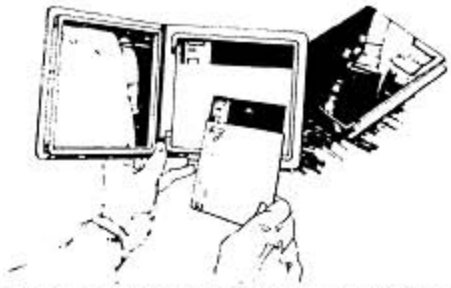

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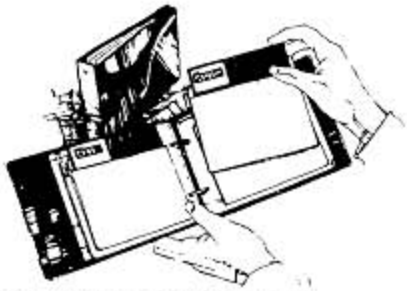

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M3G

ABOUT M3G

Mid-Michigan Microcomputer Group (M3G) is a non-profit organization of computer hobbyists, enthusiasts, and users in the Lansing and Mid-Michigan area. Formed in 1975, M3G is the oldest personal computer organization in the area. Membership in the club is open to anyone with an interest in personal computing.

MEETINGS

General membership meetings are held each month, generally on the third Thursday of each month (barring scheduling problems), at the East Lansing Public Library, at 7:30 pm. Visitors are welcome at any meeting.

DUES

Annual dues for M3G are $12.00, for 12 consecutive months. Family memberships (two or more people at the same address, receiving only one copy of the Newsletter) are available. The first member pays full dues; additional members each pay $1.00 per year.

To join M3G, come to any meeting, or send one year's dues with your name and address to: M3G, c/o P.O. Box 1302, East Lansing, MI 48823.

AFFILIATIONS

M3G is a member of the Midwest Affiliation of Computer Clubs (MACC), and of the Michigan Computer Consortium (MC2).

NEWSLETTER

M3G members receive ENERGY, published by the Michigan Computer Consortium, as a benefit of membership.

SPECIAL INTEREST GROUPS (SIGs)

M3G currently has three active Special Interest Groups: the Osborne SIG, the Heath/Zenith SIG, and the CP/M SIG. These SIGs hold additional meetings as their members wish, and may charge SIG dues in addition to M3G dues if the SIG so decides. SIG meetings are announced in the Meeting Calendar in ENERGY. Additional SIGs may be formed on any computer-related topic which M3G members may want.

OFFICERS

President	Joe Werner	337-7415
		349-0200 (days)
Vice President	Lee Hodges	669-3258
Secretary/Treasurer	Lynn Wardwell	645-2214
MACC Trustee	Frank Dolinar	351-1899
CP/M SIG Chairman	Greg Martin	484-5850
Heath SIG Chairman	Bill Goodwin	349-9657
Osborne SIG Chmn.	Jim Pease	332-8746

VIEW FROM THE TOP

by Joe Werner
President, M3G

Due to a rather pronounced lack of interest, elections were not held at our January meeting as scheduled. It was decided that the turnout at the meeting was too small to be representative, so the elections were postponed until the February meeting.

The February meeting will be held a week earlier than normal, on the 9th of February, at 7:30. Because of a scheduling quirk, the Osborne group happens to be meeting the same evening. We have negotiated a joint meeting of the two groups. PROMPTLY at 7:30, we will start the business meeting; the only order of business planned is the election of a new President, Vice-President, Secretary, and Treasurer, to serve for 1984. (All M3G members are eligible to vote at this meeting. This includes all SIG members.) The business meeting will be over by 9:00 pm. (The Osborne group may also have some business to conduct, however.) The program planned includes Larry Tirone discussing how he implemented ZCPR on his Osborne, and a demo of the TRS-80 Model 4P portable by Greg Martin.

The M3G Executive Committee will discuss prospective candidates for office at the regular Executive Committee meeting on February 2, 1984, at 7:30 pm at Beggars Banquet. The Committee will serve as a nominating committee, attempting to assure that at least one qualified, willing, nominee is found for each office. Additional nominations will be welcomed during the election. If you think you or someone you know would be willing to run for an office, contact an Executive Committee member (any of the officers or SIG chairmen), or come to the Committee meeting.

Please take the time to look at your mailing label. If you have the letters "M3G" on the top line, I'd like you to check some other codes. One is a four-digit number that looks like "8412". This is your expiration date in the form YYMM. (The example shows an expiration date of December, 1984.) You are a member of M3G, paid up through the month shown. The other code on the same line is an M (denoting M3G) followed by your member number (which is also on your membership card), followed by letters denoting SIG membership (O, H, or C). Of course, if "the computer" has made any mistakes, please call them to our attention so that we may correct them.

Some of you may also find the word RENEW on your label. This is a subtle reminder that your membership has expired and that it's time to pay your dues. IF YOUR MEMBERSHIP EXPIRED IN DECEMBER OF 1983 (8312), THIS IS YOUR LAST COPY OF ENERGY! Please renew your membership as soon as possible, either by sending your $12 dues (family memberships $1 extra per additional member) to M3G, P.O. Box 1302, East Lansing, MI 48823, or bring your dues to the February meeting.

Upcoming meetings are:

Thursday, February 9, 1984. (NOTE second Thurs.)
Wednesday, March 14, 1984. (NOTE second Wed.)

AROUND THE INDUSTRY

by Joe Werner

Can someone please tell me what's going on in the industry right now? There are a lot of strange things that have happened, and I'm not sure what they all mean.

To start with, I note that this month's ^UComputer Design^U reports that IBM has "heavily curtailed" research activity into high-speed, low-power Josephson technology. Apparently, other companies, such as Bell Labs and Sperry, have also cut back on Josephson research.

I also note that General Electric has sold off its printer division (more properly, the old GE Data Communication Products Department) to a new company called GENICOM. Combined with an announcement a short time ago that GE had reached an agreement in principle to sell its small appliance division to Black and Decker, I wonder what is going on at GE.

In other news this month, January's ^UDatamation^U reports that: "The inventors of the BASIC programming language, John Kemeny and Tom Kurtz, are said to be joining forces with other Dartmouth College colleagues to form a company called True Basic. Their mission? To clean up what they think is the sorry state of the popular language. There are too many incompatible and poorly written versions on the market, the two entrepeneurs claim, adding that they are planning to develop a portable BASIC based on the ANSI standard. First target machine is the IBM PC."

"And Burroughs Fellow Professor Doctor Edsger W. Dijkstra observed in a 1975 report entitled "How Do We Tell Truths That Might Hurt", "It is practically impossible to teach good programming to students that have had prior exposure to BASIC; as potential programmers they are mentally mutilated beyond hope of regeneration." Of course, he had bad things to say about many other languages: COBOL "cripples the mind", FORTRAN "the infantile disorder", or APL "a mistake, carried through to perfection".]

Well, have you survived the great Bell Breakup? I have, I think, but I'm still waiting to see what's next. I think Louis Rukeyser summed it up well in his article, published in the Lansing State Journal on Sunday, Dec. 25, 1983, when he observed "[Bert] Lance, you will recall, liked to say 'If it ain't broke, don't fix it'. The U.S. Telephone system was conspicuously the best in the world. So we fixed it."

Finally, a couple of quotes. I happened to hear Adam Osborne speak at the 1978 MACC Computerfest in Detroit. He said, "He who buys on the cutting edge of technology will be sacrificed upon it." In the October, 1983, ^UDatamation^U, under the heading "Quote of the Month", appears a quote from Dave Lorenzen, former director of customer services at Osborne Computer Corp.: "Those who live by the cutting edge of technology are doomed to die on it".

H-Z SIG

Want to try UNIX? According to the CHUG newsletter there is an Altos 68000 machine in Ann Arbor running as a conference system. It has at least three phone lines and may have six by now. There should be plenty of room. The Altos can handle sixteen users. There are a number of different conferences available including one on the '100. Users also have access to the UNIX operating system that operates the conference system. New users logon by entering "help" at sign-on. Be sure to use lower case! You will be given an id and password. Then, at the ok: prompt, enter "help conferences" for a list of all that are on the system. To enter one of them enter "join CONFERENCE_NAME" To leave the system enter "stop" or a control-d.

Some sample commands are:

participants - lists all members of the present conference.

!finger <login id> - gives detailed info on the participants.

!who - shows who is on the system right now.

!write <login id> - allows a real-time conversation between users of the system.End this procedure with a control-d

!party - allows a real-time conversation between all users of the party program.

mail <login id>- allows you to send mail to another user. End your message by entering a period (.) or control-d as the first character of a line.

I haven't tried this yet so I can't guarantee results. Oh yes, the phone number is 313-994-6333. The information in the CHUG newsletter didn't include accessing the UNIX system. I assume that can be found on the system.

About meetings. Remember that the February meeting will be held on Sunday, Feb. 12 at 1:00 PM. The topic is unknown at this time. The big meeting will be Sunday, March 11 when Terry Jensen of HUG will visit us. Time, once again, will be 1:00 PM.

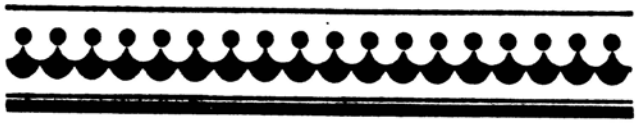
The subject of presentations for meetings is of interest to us all. I find that the ideas that interest me tend to bore most people.(I know one fellow I can send screaming from the room just by saying "FORTH".) Therefore, I need your help in selecting topics. If you would like to see a particular topic at one of our meetings please let me know. If you wish to present a program to one of our meetings I would like to hear from you.

Speaking of Forth, Mountain View Press held a contest for the best description of Forth in twenty-five words or less. For those who are certain that Forth attracts crazies the winner is now presented.

> "Forth is like the Tao: it is a way, and is realized when followed. Its fragility is its strength; its simplicity is its direction."

If anyone decides to start a Forth SIG under M3G I'll join in an instant.

I hope no one gets the idea that this SIG is devoted to the H-100 only. It is not! As one of the first H8 owners I know fully well the value of Heath's 8-bit machines and will do what I can to assure that software acquired by the SIG will be available in hard-sector format for those who need it.



SDI for HZ/SIG

Here are some recent magazine articles you may have missed:

Mark Renne: "Review: Business Graphics System". InfoWorld, 5Dec83, p. 96, 99. A favorable review of Peachtree's *Business Graphics System* for the Z100 using Z-DOS.

Leonard E. Geisler and Gerald Voorheis: "Hooked on Heath". Microcomputing, Nov83, pp. 54-55. An article on using a modem with a cassette-based Heath H8 computer.

Martin Moore: "Moore on the H120: a new generation". Microcomputing, Nov83, pp. 60-62, 64-65. A review of Heath's latest kit-form computer.

Michael J. Miller: "PeachText 5000". Popular Computing, Feb84, pp. 171, 174, 176, 178. A review of the 'integrated' software package for Zenith's Z-100.

Ken Skier: "The Zenith Z-100". Byte, Jan84, pp. 268-270, 272, 274, 276, 278. An extended review of the Z-100.

Henry F. Beechhold: "Review: PeachText 5000". InfoWorld, 16Jan84, pp. 59, 63, 65. An evaluation of the word processor (formerly called *Magic Wand* for the Z-100.

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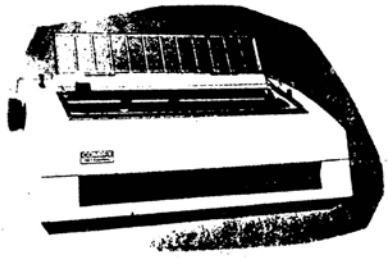

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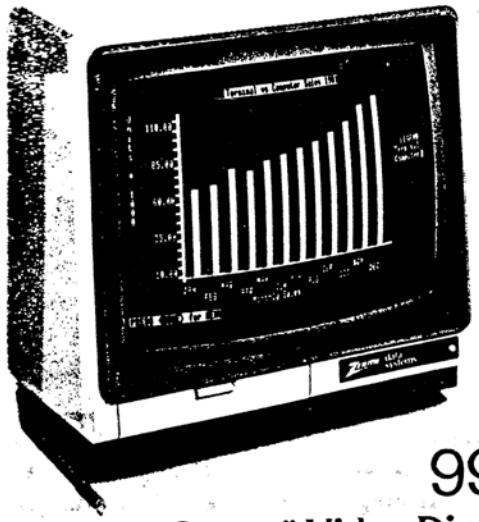

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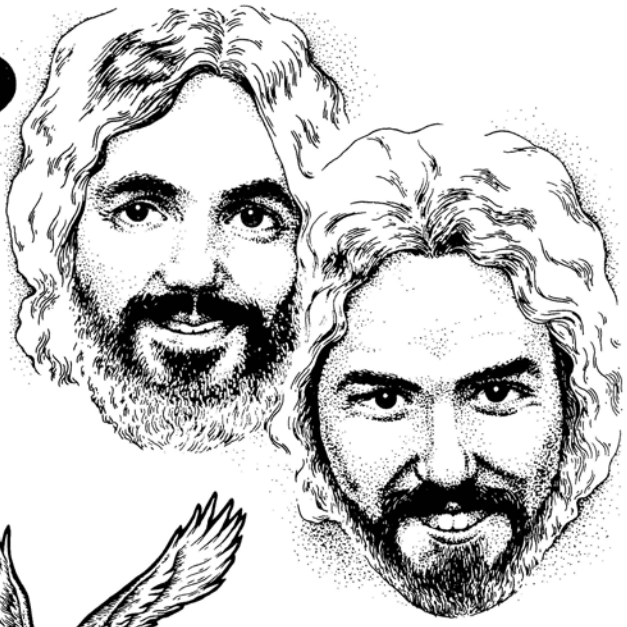
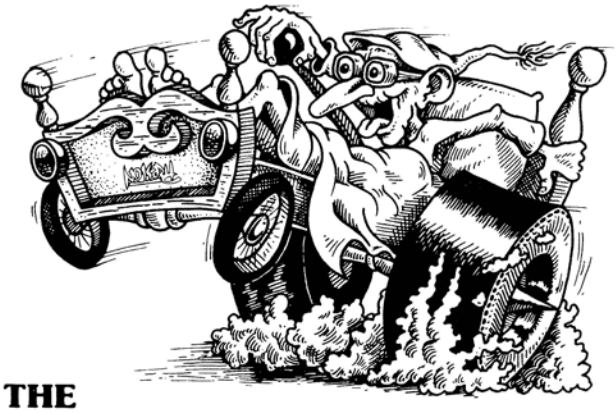


Jerry Lewis And His Kids Present



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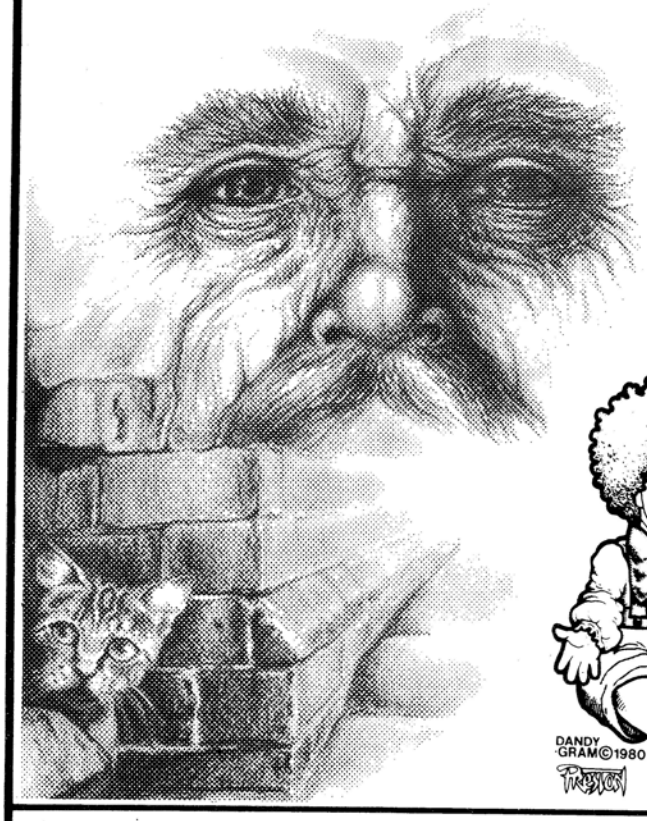

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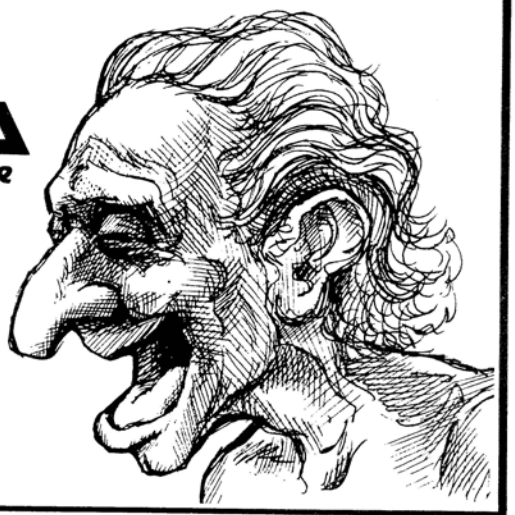

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PRINTER CARE

Last month we talked about disk-drives, and how to keep them working properly. Since they have moving parts, the element of wear must be considered. Those moving parts are much more likely to go out to lunch than computers themselves, which are composed of solid-state devices subject mainly to the threat of irregularities in the supply of electric power. The other class of computer product with extra vulnerability because of its moving parts is the printer. In this month's column we will discuss some things to think about concerning your printer. I am assuming that most of you have dot-matrix machines, so I'll limit my remarks to that type.

The hardest-working part of your printer is the printhead. Its needles move with incredible speed and precision as they print the dots that form letters on the paper, and considering how long they last, on average, printheads deserve a lot of respect from us reformed pencil-pushers. One way to show that respect is to use fresh ribbons. There is not much danger to the printhead in continuing to use tired ribbons, which for some printers can be a bit costly. The temptation is to cut corners by re-inking used ribbons, or by spraying them with a solvent to release more ink. I haven't seen any studies on this, but I should point out that one component in ribbon ink is in fact a lubricant for the printhead needles, and if you use anything other than a new replacement ribbon you run the risk of either gumming up the printhead or depriving it of adequate lubrication.

Another factor in printhead longevity is heat. Depending on your printer's head design, it may be one that naturally generates heat as it idles. Of course, it generates heat while it's printing too, and that's why most of the mass of a printhead is actually a heat-sink to carry away that heat. But when it is printing, it is also picking up that lubricant from the ribbon ink which cools in the same way 10W40 oil does in your car's engine. Clearly, a couple hours of idling time is not crucial, but unlike your computer, which can remain powered up 24 hours a day, your printer should be switched off when you are not actually involved in a computing session.

A third factor also involves the printhead, but somewhat indirectly. As the printhead whizzes back and forth over the paper, poking it thousands of times, paper dust is produced, which can build up in obstructive amounts. The simple solution, of course, is gently to vacuum this dust from time to time. While you are at it, run the soft brush attachment over your keyboard too. Why not be generous?

The above precautions pertain to normal use of your printer, but there are some further precautions to take whenever you must move or transport your printer. I am thinking here about Epson printers, but other brands probably have similar sensitivities. One, remove the ribbon cartridge during the move, to avoid accidental, prolonged contact with the printhead. Two, slip a piece of paper into the carriage. This guards against damage to the reed which senses when the printer is out of paper. This is similar to the need to insert a cardboard 'dummy disk' into a drive when it is transported: you don't want your read-write head rattling around if you can help it.

Finally, here's a warning especially about Epson printers which may also apply to other brands: never try to roll the paper backwards when the printer is powered up. This can strip the tractor gears and you *will* have a problem on your hands. With the power off this is alright, though you will have to pull the paper backwards yourself to accomplish this.

I don't pretend that these are going to be new ideas for veteran micro-nuts, but if you have just acquired your first printer you will want to keep these tips in mind. Today's dot-matrix printers are truly marvelous machines for the money, but they won't run forever without some kind of regular attention. See you next month!

Matt Cantrell

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